

Semi-hermetic GEA Compressors

Single- and two-stage reciprocating
GEA Bock compressors (HG/HA)

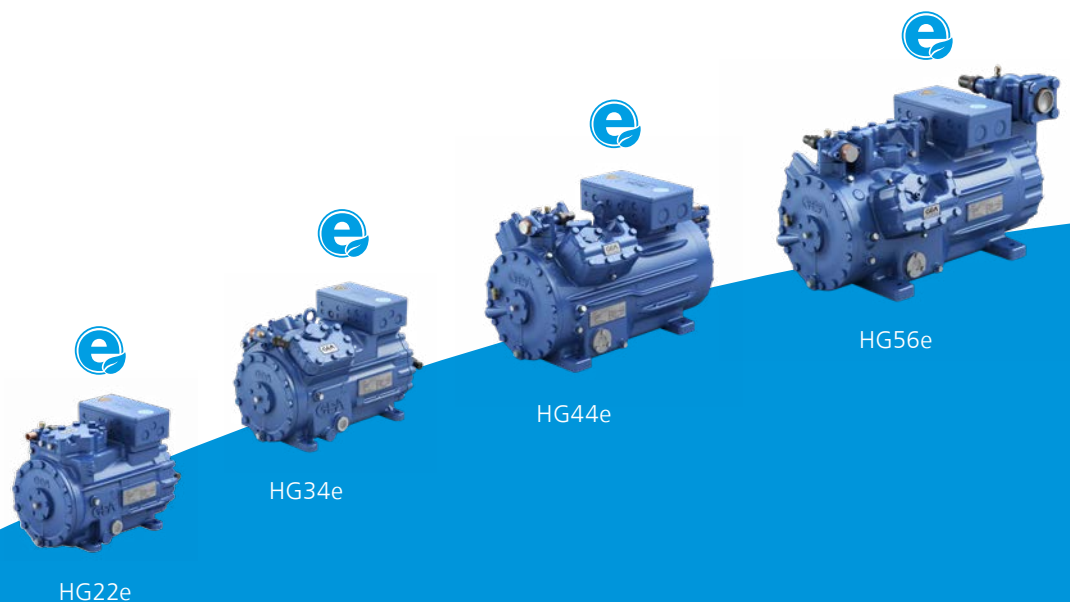
Improved HG/HA Series

For new advancements in efficiency, GEA has now updated its entire semi-hermetic compressor range. The new models, marked with the letter “e” (= efficiency), all offer decisive mechanical improvements, a more compact design and easier-to-use connections.

The entire range of gas-cooled commercial GEA compressors is now available in the new, optimized design. In addition to their uses in the fields of refrigeration and air-conditioning, the new compressors are ideally suited for refrigeration in supermarkets. They offer improved efficiency over their predecessors, greater displacement stages, a more compact structural design, and a new configuration of connections.

To increase efficiency and reduce energy consumption, the new models profit from a new and advanced valve plate system, electrical motors from the latest generation, and enhanced gas flow.

The re-designed connections match the gas connections normally found in the sector, to ensure that no adaptation work is necessary when the user invests in a replacement compressor. The foot mountings of the new compressor likewise conform to sector standards.



Newly designed housing with optimized gas flow

MexxFlow® 2.0 valve plate system

Proven and reliable oil pump lubrication

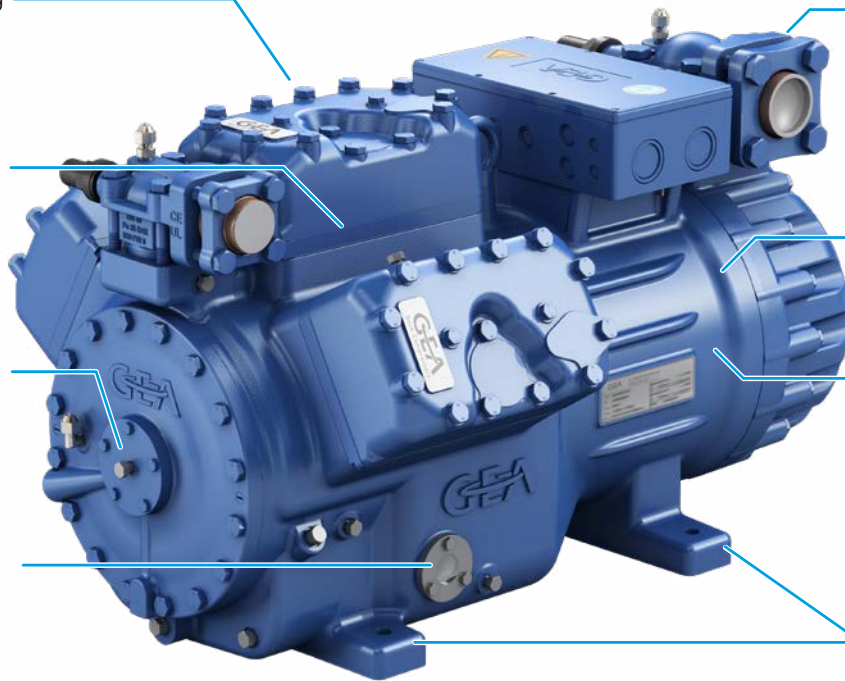
Standard-position sight glass

Standard-position valves

Highly efficient electric motors of the latest generation

Exchangeable motor

Standard footprints

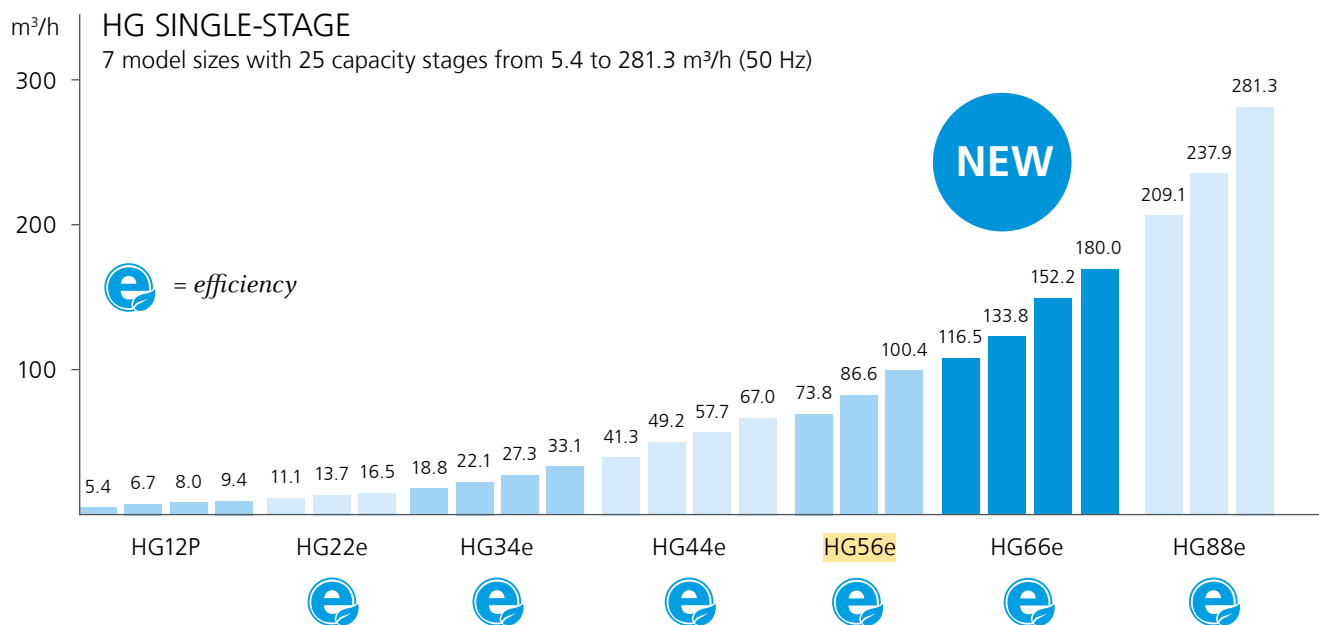


GEA Bock HG semi-hermetic compressors

The GEA Bock HG (Hermetic Gas-cooled) range of single-stage, semi-hermetic compressors offers traditional suction-gas-cooled compressor technology. These compressors of the highest quality standard excel in their running comfort, easy maintenance, efficiency and reliability. They are suitable as standard for conventional or chlorine-free HFC refrigerants.

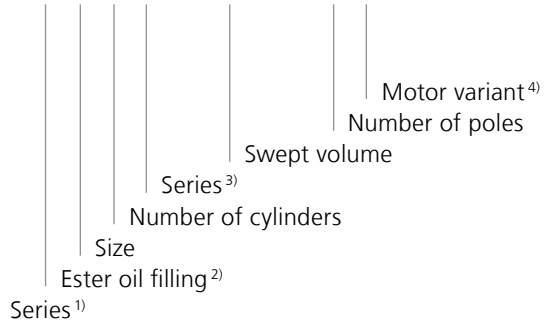
Special features:

- Outstanding running comfort
- Efficiency and reliability on the highest level of quality
- Service-friendly design, e.g. with replaceable drive motors
- Oil pump lubrication
- Electronic motor protection
- Suitable components for conventional or chlorine-free HFC refrigerants

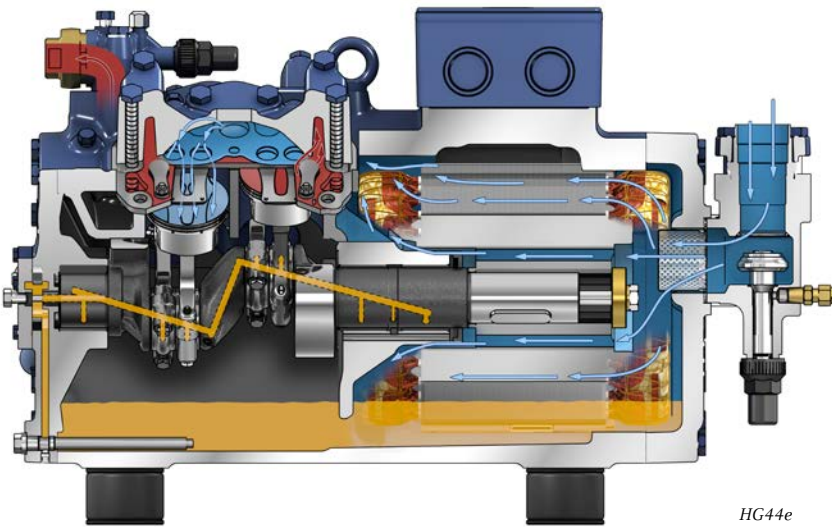


TYPE KEY

HG X 6 6 e / 2070 - 4 S



- ¹⁾ HG = Hermetic Gas-Cooled (suction-gas-cooled)
- ²⁾ X = Ester oil filling
(HFC refrigerants e.g. R134a, R404A, R448A, R449A)
- ³⁾ e = Additional marker for e-series compressors
P = Pluscom
- ⁴⁾ S = More powerful motor e.g. for air-conditioning applications



HG44e

PERFORMANCE DATA

R404A/R507													50 Hz			
Type	Cond. temp. °C		Cooling capacity \dot{Q}_0 [W]										Power consumption P_e [kW]			
			Evaporating temperature °C													
			7.5	5	0	-5	-10	-15	-20	-25	-30	-35	-40	-45		
HGX44e/475-4 HGX44e/475-4 S	30	Q	52500	48300	40200	33500	27500	22400	18000	14300	11100	8340	6060	4110		
		P	7.73	7.85	7.91	7.80	7.52	7.10	6.57	5.94	5.26	4.54	3.81	3.11		
	40	Q	45200	41400	34200	28300	23200	18800	15000	11800	9010	6670	4650	2870		
		P	9.97	9.90	9.62	9.16	8.57	7.88	7.12	6.31	5.47	4.64	3.84	3.11		
	50	Q	37600	34300	28100	23100	18800	15100	12000	9260	6970	5000	3270			
		P	11.8	11.5	11.0	10.2	9.41	8.49	7.55	6.59	5.65	4.76	3.94			
HGX44e/565-4 HGX44e/565-4 S	30	Q	62700	57700	47800	39800	32800	26800	21600	17200	13400	10200	7470	5140		
		P	9.18	9.32	9.45	9.31	8.97	8.47	7.82	7.07	6.24	5.38	4.51	3.66		
	40	Q	54000	49600	40700	33700	27700	22500	18100	14300	11100	8230	5820	3680		
		P	11.8	11.7	11.5	10.9	10.2	9.42	8.49	7.51	6.50	5.50	4.55	3.67		
	50	Q	45100	41200	33400	27500	22500	18200	14500	11400	8620	6270	4180			
		P	14.0	13.7	13.2	12.3	11.2	10.1	9.01	7.85	6.72	5.64	4.66			
HGX44e/665-4 HGX44e/665-4 S	30	Q	73100	67100	56000	46500	38300	31100	25000	19800	15300	11600	8340	5630		
		P	10.7	10.9	11.0	10.9	10.5	9.94	9.19	8.32	7.36	6.35	5.33	4.34		
	40	Q	62700	57400	47500	39300	32200	26000	20800	16300	12500	9160	6360	3910		
		P	13.9	13.8	13.4	12.8	12.0	11.0	9.97	8.83	7.66	6.49	5.37	4.34		
	50	Q	52000	47500	38900	32000	26000	20900	16500	12800	9570	6840	4440			
		P	16.5	16.1	15.4	14.3	13.1	11.8	10.5	9.22	7.91	6.66	5.51			
HGX44e/770-4 HGX44e/770-4 S	30	Q	84600	77800	65300	54300	44700	36500	29400	23300	18100	13800	10100	6840		
		P	12.4	12.6	12.8	12.6	12.1	11.5	10.6	9.62	8.51	7.34	6.16	5.02		
	40	Q	72600	66500	55600	46100	37800	30700	24500	19300	14900	11100	7750	4860		
		P	16.1	16.0	15.5	14.8	13.8	12.7	11.5	10.2	8.86	7.51	6.22	5.02		
	50	Q	60300	55100	45700	37600	30700	24700	19600	15300	11600	8360	5530			
		P	19.2	18.8	17.8	16.5	15.2	13.7	12.2	10.6	9.15	7.70	6.37			
HGX56e/850-4 HGX56e/850-4 S	30	Q	93700	86100	71800	59800	49300	40200	32400	25800	20100	15300	11200	7710		
		P	13.7	13.9	14.1	13.9	13.4	12.6	11.7	10.6	9.38	8.08	6.77	5.49		
	40	Q	80500	73800	61100	50600	41600	33800	27200	21400	16600	12400	8720	5520		
		P	17.7	17.6	17.1	16.3	15.3	14.0	12.7	11.2	9.76	8.27	6.83	5.50		
	50	Q	67000	61200	50100	41300	33800	27300	21800	17000	13000	9410	6280			
		P	21.1	20.6	19.6	18.3	16.8	15.1	13.4	11.7	10.0	8.48	7.00			
HGX56e/995-4 HGX56e/995-4 S	30	Q	111000	102000	85000	70800	58300	47400	38000	29800	22900	17100	12200	8120		
		P	18.6	18.3	17.6	16.7	15.8	14.6	13.4	12.1	10.7	9.21	7.61	5.94		
	40	Q	94300	86600	72100	59800	49000	39600	31500	24500	18500	13400	9110	5480		
		P	22.0	21.5	20.4	19.2	17.8	16.3	14.7	12.9	11.1	9.23	7.23	5.15		
	50	Q	78000	71400	59000	48600	39500	31700	24900	19100	14100	9800	6130			
		P	25.3	24.6	23.1	21.4	19.6	17.6	15.5	13.4	11.1	8.75	6.30			
HGX56e/1155-4 HGX56e/1155-4 S	30	Q	127000	117000	97500	81100	66800	54500	43900	34800	27100	20600	15000	10300		
		P	19.4	19.7	20.0	19.7	19.0	17.9	16.6	15.0	13.2	11.4	9.59	7.80		
	40	Q	109000	99900	83000	68800	56400	45800	36700	28900	22200	16600	11700	7280		
		P	25.1	24.9	24.4	23.2	21.7	19.9	18.0	15.9	13.8	11.7	9.68	7.80		
	50	Q	90600	82800	68200	56200	45800	36900	29300	22900	17300	12500	8270			
		P	29.9	29.2	27.9	26.0	23.8	21.5	19.1	16.6	14.2	12.0	9.91			
HGX66e/1340-4 HGX66e/1340-4 S	30	Q	150000	138000	115000	95700	78800	64100	51300	40400	31000	23100	16500	11000		
		P	25.0	24.9	24.2	23.2	21.9	20.3	18.5	16.5	14.4	12.3	10.3	8.30		
	40	Q	129000	118000	97900	81200	66600	53800	42800	33400	25400	18500	12700			
		P	30.3	29.7	28.4	26.6	24.5	22.3	19.9	17.4	14.9	12.5	10.1			
	50	Q	106000	97000	79900	65900	53700	43100	34100	26400	19800	14200				
		P	34.9	33.9	31.8	29.3	26.6	23.8	20.9	17.9	15.0	12.2				

Relating to 20°C suction gas temperature without liquid subcooling

■ Supplementary cooling or reduced suction gas temperature

■ Motor version -S- (more powerful motor)

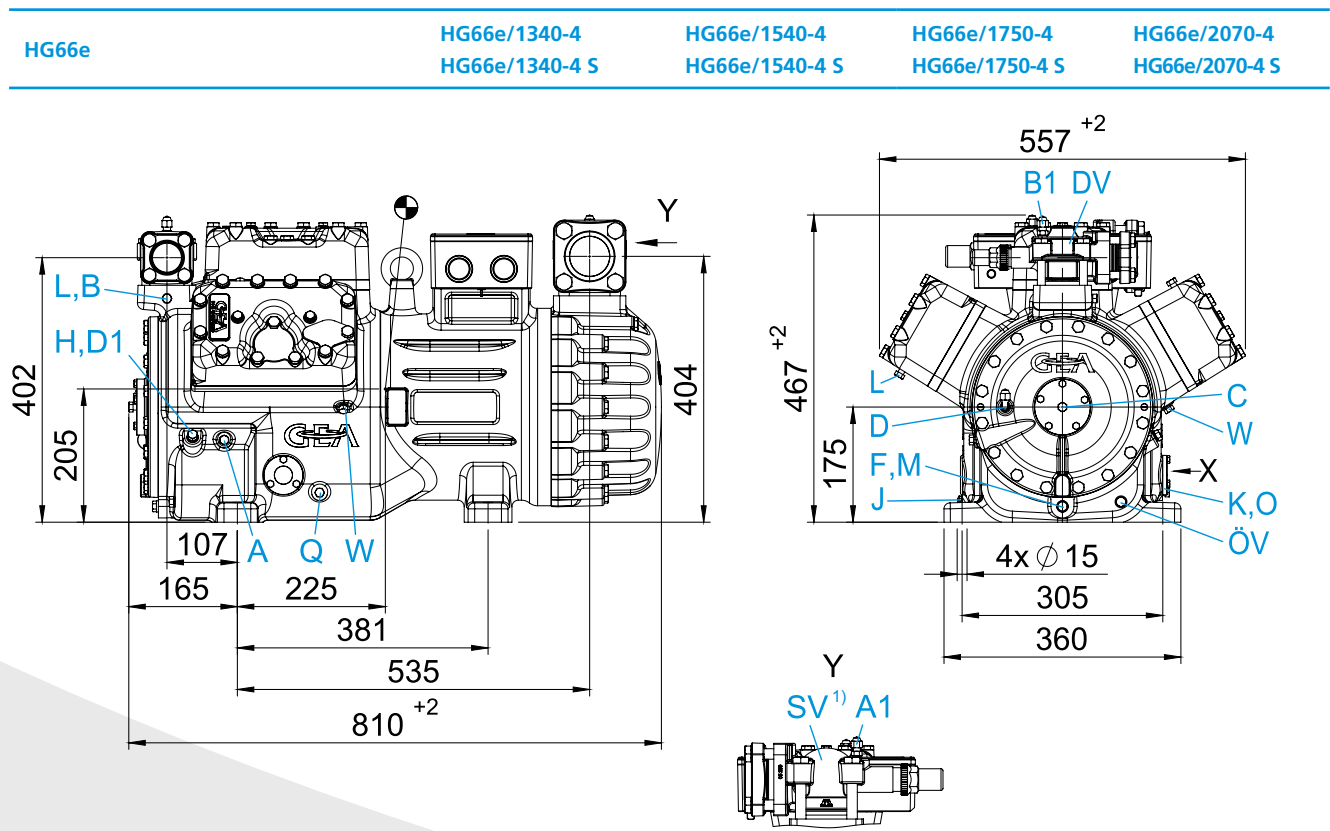
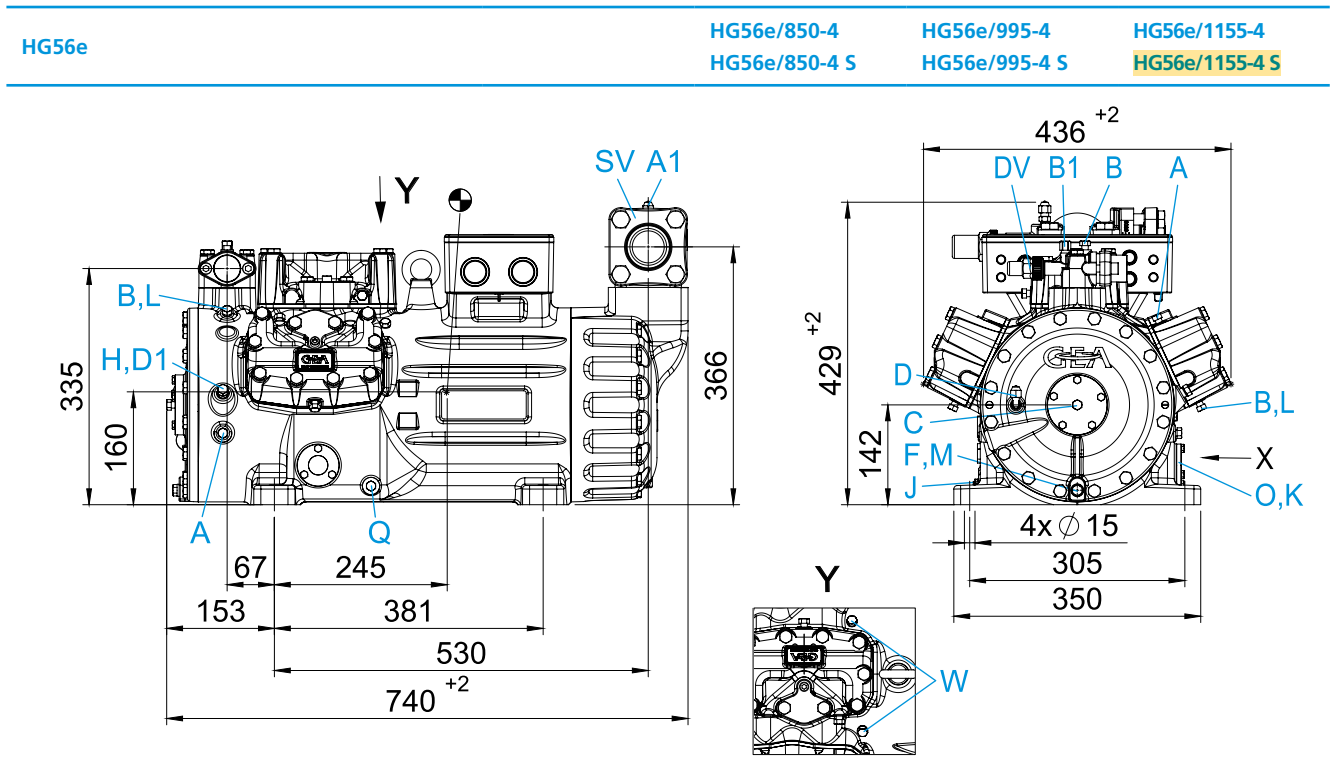
TECHNICAL DATA

HG

Type	Number of cylinders	Displacement 50/60 Hz (1,450/1,740 rpm) m ³ /h	Electrical data				Weight kg	Connections ⁵⁾		Oil charge Ltr.	Frequency range Hz
			Voltage ¹⁾	Max. working current ²⁾	Max. power consumption ²⁾	Starting current (rotor locked)		Discharge line DV	Suction line SV		
HG12P/60-4 S	2	5.40 / 6.40	3)	6.8 / 3.9	2.2	40 / 23	48.0	12 1/2	16 5/8	0.8	30-70
HG12P/75-4	2	6.70 / 8.10	3)	7.1 / 4.1	2.3	40 / 23	48.0	12 1/2	16 5/8	0.8	30-70
HG12P/75-4 S	2	6.70 / 8.10	3)	8.0 / 4.6	2.6	43 / 25	49.0	12 1/2	16 5/8	0.8	30-70
HG12P/90-4	2	8.00 / 9.60	3)	8.5 / 4.9	2.8	43 / 25	49.0	12 1/2	16 5/8	0.8	30-70
HG12P/90-4 S	2	8.00 / 9.60	3)	9.1 / 5.3	3.0	45 / 26	49.0	12 1/2	16 5/8	0.8	30-70
HG12P/110-4	2	9.40 / 11.30	3)	9.2 / 5.3	3.1	43 / 25	49.0	12 1/2	16 5/8	0.8	30-70
HG12P/110-4 S	2	9.40 / 11.30	3)	10.6 / 6.1	3.6	45 / 26	49.0	12 1/2	16 5/8	0.8	30-70
HG22e/125-4	2	11.10 / 13.30	3)	9.3 / 5.4	3.0	69 / 40	74.0	16 5/8	22 7/8	1.0	30-70
HG22e/125-4 S	2	11.10 / 13.30	3)	10.8 / 6.2	3.6	69 / 40	74.0	16 5/8	22 7/8	1.0	30-70
HG22e/160-4	2	13.70 / 16.40	3)	11.1 / 6.4	3.7	69 / 40	74.0	16 5/8	22 7/8	1.0	30-70
HG22e/160-4 S	2	13.70 / 16.40	3)	13.1 / 7.6	4.4	87 / 50	76.0	16 5/8	22 7/8	1.0	30-70
HG22e/190-4	2	16.50 / 19.80	3)	13.8 / 8.0	4.8	69 / 40	74.0	16 5/8	22 7/8	1.0	30-70
HG22e/190-4 S	2	16.50 / 19.80	3)	16.2 / 9.4	5.6	87 / 50	75.0	16 5/8	22 7/8	1.0	30-70
HG34e/215-4	4	18.80 / 22.60	3)	14.0 / 8.1	4.8	87 / 50	92.0	22 7/8	28 1 1/8	1.2	25-70
HG34e/215-4 S	4	18.80 / 22.60	3)	18.3 / 10.5	6.0	132 / 76	97.0	22 7/8	28 1 1/8	1.2	25-70
HG34e/255-4	4	22.10 / 26.60	3)	17.0 / 9.8	6.0	87 / 50	92.0	22 7/8	28 1 1/8	1.2	25-70
HG34e/255-4 S	4	22.10 / 26.60	3)	21.1 / 12.2	7.2	132 / 76	96.0	22 7/8	28 1 1/8	1.2	25-70
HG34e/315-4	4	27.30 / 32.80	3)	21.1 / 12.2	7.4	111 / 64	94.0	22 7/8	28 1 1/8	1.2	25-70
HG34e/315-4 S	4	27.30 / 32.80	3)	25.5 / 14.7	8.9	132 / 76	97.0	22 7/8	28 1 1/8	1.2	25-70
HG34e/380-4	4	33.10 / 39.70	3)	26.1 / 15.1	9.3	111 / 64	93.0	22 7/8	28 1 1/8	1.2	25-70
HG34e/380-4 S	4	33.10 / 39.70	3)	31.2 / 18.0	11.1	132 / 76	96.0	22 7/8	28 1 1/8	1.2	25-70
				PW 1+2*		PW1 / PW 1+2*					
HG44e/475-4	4	41.30 / 49.60	4)	19.0	11.0	83 / 109	164.0	28 1 1/8	35 1 3/8	2.3	25-70
HG44e/475-4 S	4	41.30 / 49.60	4)	23.0	13.1	115 / 150	168.0	28 1 1/8	35 1 3/8	2.3	25-70
HG44e/565-4	4	49.20 / 59.00	4)	22.0	13.2	83 / 109	164.0	28 1 1/8	35 1 3/8	2.3	25-70
HG44e/565-4 S	4	49.20 / 59.00	4)	26.0	15.6	133 / 171	170.0	28 1 1/8	42 1 5/8	2.3	25-70
HG44e/665-4	4	57.70 / 69.20	4)	26.0	15.4	115 / 150	171.0	28 1 1/8	42 1 5/8	2.3	25-70
HG44e/665-4 S	4	57.70 / 69.20	4)	30.0	18.3	133 / 171	168.0	28 1 1/8	42 1 5/8	2.3	25-70
HG44e/770-4	4	67.00 / 80.40	4)	30.0	17.8	133 / 171	168.0	28 1 1/8	42 1 5/8	2.3	25-70
HG44e/770-4 S	4	67.00 / 80.40	4)	35.0	21.4	133 / 171	168.0	28 1 1/8	42 1 5/8	2.3	25-70
HG56e/850-4	6	73.80 / 88.60	4)	32.6	19.7	133 / 171	194.3	35 1 3/8	54 2 1/8	2.7	25-70
HG56e/850-4 S	6	73.80 / 88.60	4)	39.4	23.5	162 / 210	211.1	35 1 3/8	54 2 1/8	2.7	25-70
HG56e/995-4	6	86.60 / 103.90	4)	38.9	23.2	162 / 210	194.3	35 1 3/8	54 2 1/8	2.7	25-70
HG56e/995-4 S	6	86.60 / 103.90	4)	46.4	27.7	189 / 246	211.3	35 1 3/8	54 2 1/8	2.7	25-70
HG56e/1155-4	6	100.40 / 120.50	4)	46.9	28.0	189 / 246	211.8	35 1 3/8	54 2 1/8	2.7	25-70
HG56e/1155-4 S	6	100.40 / 120.50	4)	58.3	33.3	253 / 330	220.6	35 1 3/8	54 2 1/8	2.7	25-70
HG66e/1340-4	6	116.50 / 139.80	4)	53.7	31.9	170 / 275	282.0	42 1 5/8	54 2 1/8	4.4	25-60
HG66e/1340-4 S	6	116.50 / 139.80	4)	65.3	38.1	196 / 335	287.0	42 1 5/8	54 2 1/8	4.4	25-60
HG66e/1540-4	6	133.80 / 160.50	4)	62.1	37.2	170 / 275	280.0	42 1 5/8	54 2 1/8	4.4	25-60
HG66e/1540-4 S	6	133.80 / 160.50	4)	75.0	44.4	196 / 335	285.0	42 1 5/8	54 2 1/8	4.4	25-60
HG66e/1750-4	6	152.20 / 182.60	4)	71.9	42.4	196 / 335	280.0	42 1 5/8	54 2 1/8	4.4	25-60
HG66e/1750-4 S	6	152.20 / 182.60	4)	86.8	50.7	222 / 361	282.0	42 1 5/8	54 2 1/8	4.4	25-60
HG66e/2070-4	6	180.00 / 216.00	4)	85.1	50.7	196 / 335	276.0	42 1 5/8	64 2 1/8	4.4	25-60
HG66e/2070-4 S	6	180.00 / 216.00	4)	103.0	60.7	222 / 361	278.0	42 1 5/8	64 2 1/8	4.4	25-60
HG88e/2400-4	8	209.10 / 250.90	4)	101.0	59.5	298 / 438	452.0	54 2 1/8	76 3 1/8	9.6	25-60
HG88e/2400-4 S	8	209.10 / 250.90	4)	120.0	69.8	447 / 657	452.0	54 2 1/8	76 3 1/8	9.6	25-60
HG88e/2735-4	8	237.90 / 285.50	4)	116.0	67.1	386 / 567	455.0	54 2 1/8	76 3 1/8	9.6	25-60
HG88e/2735-4 S	8	237.90 / 285.50	4)	136.0	80.0	447 / 657	464.0	54 2 1/8	76 3 1/8	9.6	25-60
HG88e/3235-4	8	281.30 / 337.60	4)	135.0	79.2	447 / 657	459.0	54 2 1/8	76 3 1/8	9.6	25-60
HG88e/3235-4 S	8	281.30 / 337.60	4)	162.0	93.9	538 / 791	467.0	54 2 1/8	76 3 1/8	9.6	25-60

* PW = Part Winding, motors for part winding start 1 = 1st part winding 2 = 2nd part winding

DIMENSIONS AND CONNECTIONS



Dimensions in mm
 ● Center of gravity
¹⁾ SV 180° rotatable

Connections see page 64
 Dimensions for anti-vibration pad see page 61

DIMENSIONS AND CONNECTIONS

Dimensions with accessories

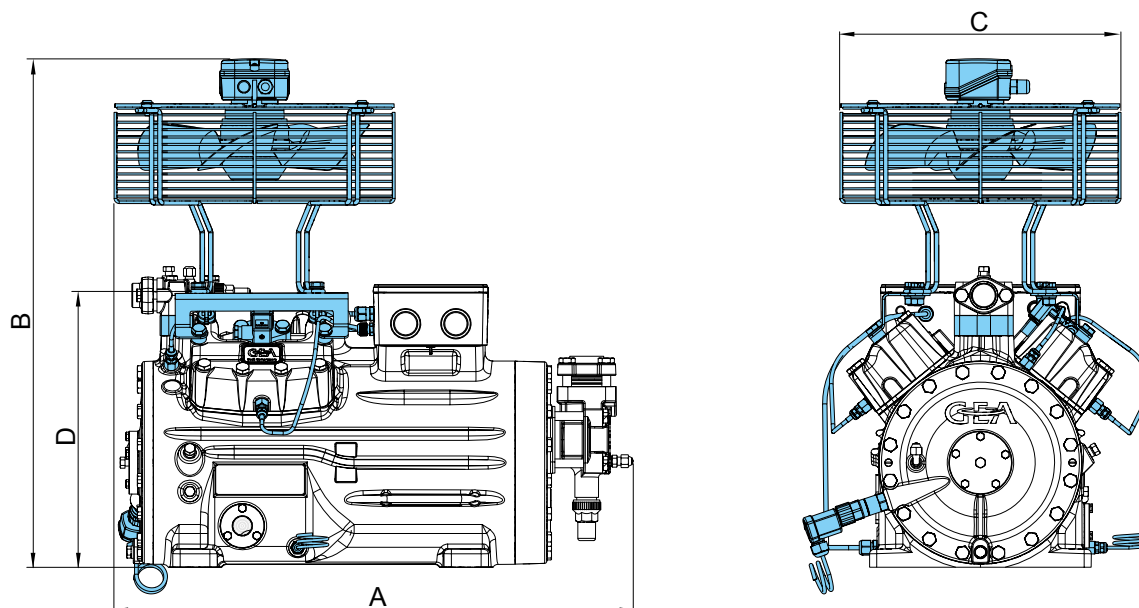
HG12P

HG22e

HG34e

HG44e

HG56e



Type	A	B	C	D
HG12P	ca. 460	ca. 500	ca. 315	–
HG22e	ca. 525	ca. 610	ca. 380	–
HG34e	ca. 580	ca. 640	ca. 380	–
HG44e	ca. 710	ca. 685	ca. 380	368
HG56e	–	ca. 710	ca. 380	–

Dimensions in mm



We live our values.

Excellence • Passion • Integrity • Responsibility • GEA-versity

GEA is one of the largest technology suppliers for food processing and a wide range of other industries. The global group specializes in machinery, plants, as well as process technology and components. GEA provides sustainable solutions for sophisticated production processes in diverse end-user markets and offers a comprehensive service portfolio.

The company is listed on the German MDAX (G1A, WKN 660 200), the STOXX® Europe 600 Index and selected MSCI Global Sustainability Indexes.

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